

WORK SETTING	ACTIVITY	PPE
Health workers <i>(it is recommended to minimize the number of operators exposed)</i>	Standard patient care	<ul style="list-style-type: none"> • Surgical mask • Disposable coat • Gloves • Protective glasses/Visor
	Aerosol-generating procedures	<ul style="list-style-type: none"> • FFP2, FFP3 • Water-repellent disposable coat • Gloves • Protective glasses/Visor
	Performing oro- or rhino-pharyngeal swab	<ul style="list-style-type: none"> • FFP2 • Disposable coat • Gloves • Protective glasses/Visor
Cleaners <i>(it is recommended to minimize the number of operators exposed)</i>	COVID-19 patient room cleaning	<ul style="list-style-type: none"> • Surgical mask • Disposable coat • Gloves • Protective glasses/Visor (if there is a risk of splashing) • Boots
Visitors <i>(it is recommended to restrict access to hospital wards for visitors)</i>	COVID-19 patient visiting	<ul style="list-style-type: none"> • Surgical mask • Disposable coat • Gloves

Supplemental Table 1

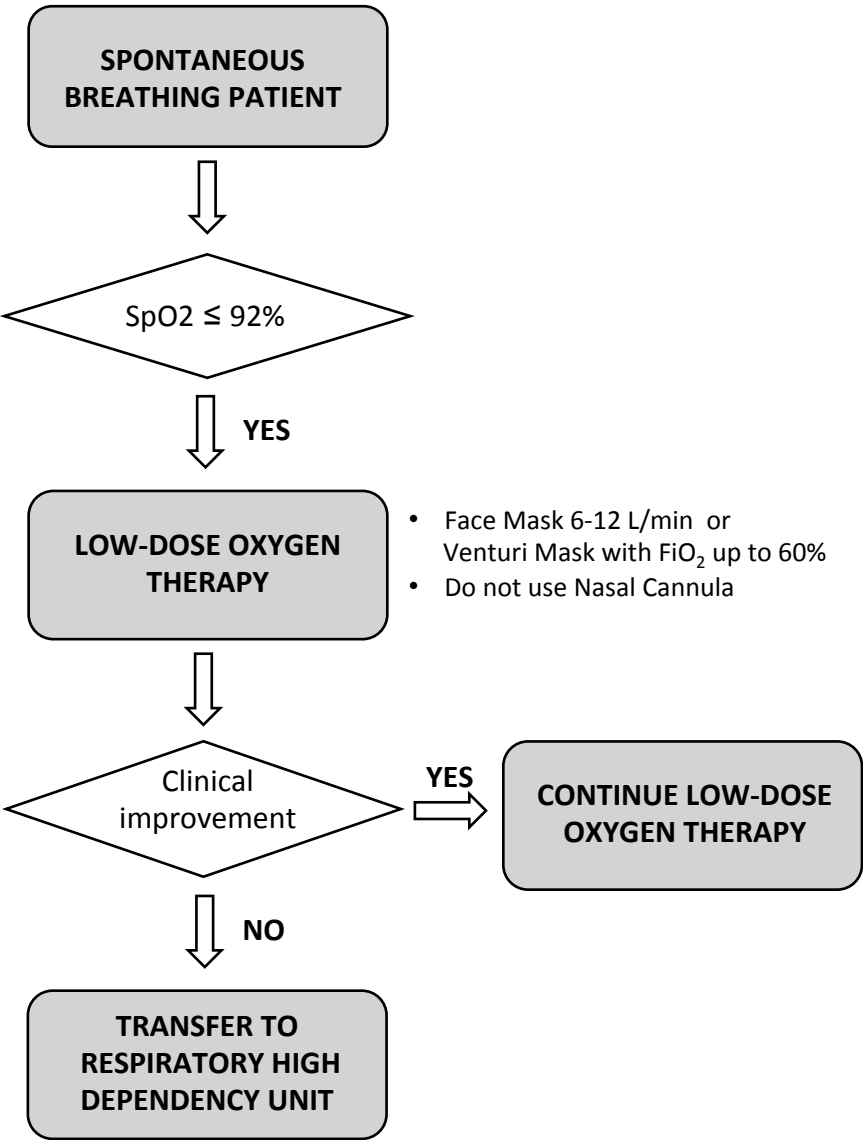
Patients	Antiretroviral Treatment
Patient with COVID-19 MEWS ≤ 2	Hydroxychloroquine: loading dose 400 mg every 12 h the first day, maintenance dose 200 mg every 12 h for 7-10 days OR Chloroquine 500 mg every 12 h for 7-10 days
Patient with moderate respiratory symptoms MEWS < 3	Lopinavir – Ritonavir (200/50 mg) 2 tablets every 12 h for 10 days OR Lopinavir – Ritonavir syrup 5 ml (400/100 mg) every 12 h + Chloroquine 500 mg every 12 h for 7-10 days OR Hydroxychloroquine 200 mg every 12 h for 10 days ----- Hydroxychloroquine: loading dose 400 mg every 12 h the first day, maintenance dose 200 mg every 12 h for 7 days ± Azithromycin loading dose 500 mg the first day, maintenance dose 250 mg every 24 h for 4 days
NOT critical patient but with severe respiratory symptoms MEWS 3 - 4	Remdesivir loading dose 200 mg , maintenance dose 100 mg every 24h for 10 days If Remdesivir not available Lopinavir – Ritonavir (200/50 mg) 2 tablets every 12 h for 10 days + Chloroquine 500 mg every 12 h for 10 days OR Hydroxychloroquine 200 mg every 12 h for 10 days + Tocilizumab 8 mg/kg (max 800 mg) ev in 100 ml saline solution 0.9% (infusion time 60-90 min). If no clinical benefit: second dose after 12 h <i>Contraindicated: Liver enzyme > 5 times the ULN, Polymorphonuclear cells < 500/mmc, Platelets < 50.000/mmc, Serious Infections. Gastrointestinal perforation, Hypersensitivity reactions, including anaphylaxis and death have occurred, Immunosuppressive therapy</i> Do not associated Lopinavir and/or Remsedesivir
Critical patient MEWS > 4	Remdesivir loading dose 200 mg, maintenance dose 100 mg every 24 for 10 days If Remdesivir not available Lopinavir – Ritonavir (200/50 mg) 2 tablets every 12 h for 10 days + Chloroquine 500 mg every 12 h for 10 days OR Hydroxychloroquine 200 mg every 12 h for 10 days + If intubation < 24 h Tocilizumab 8 mg/kg (max 800 mg) ev in 100 ml saline solution 0.9% (infusion time 60-90 min). If no clinical benefit: second dose after 12 h Do not associated Lopinavir and/or Remsedesivir

Supplemental Table 2

A

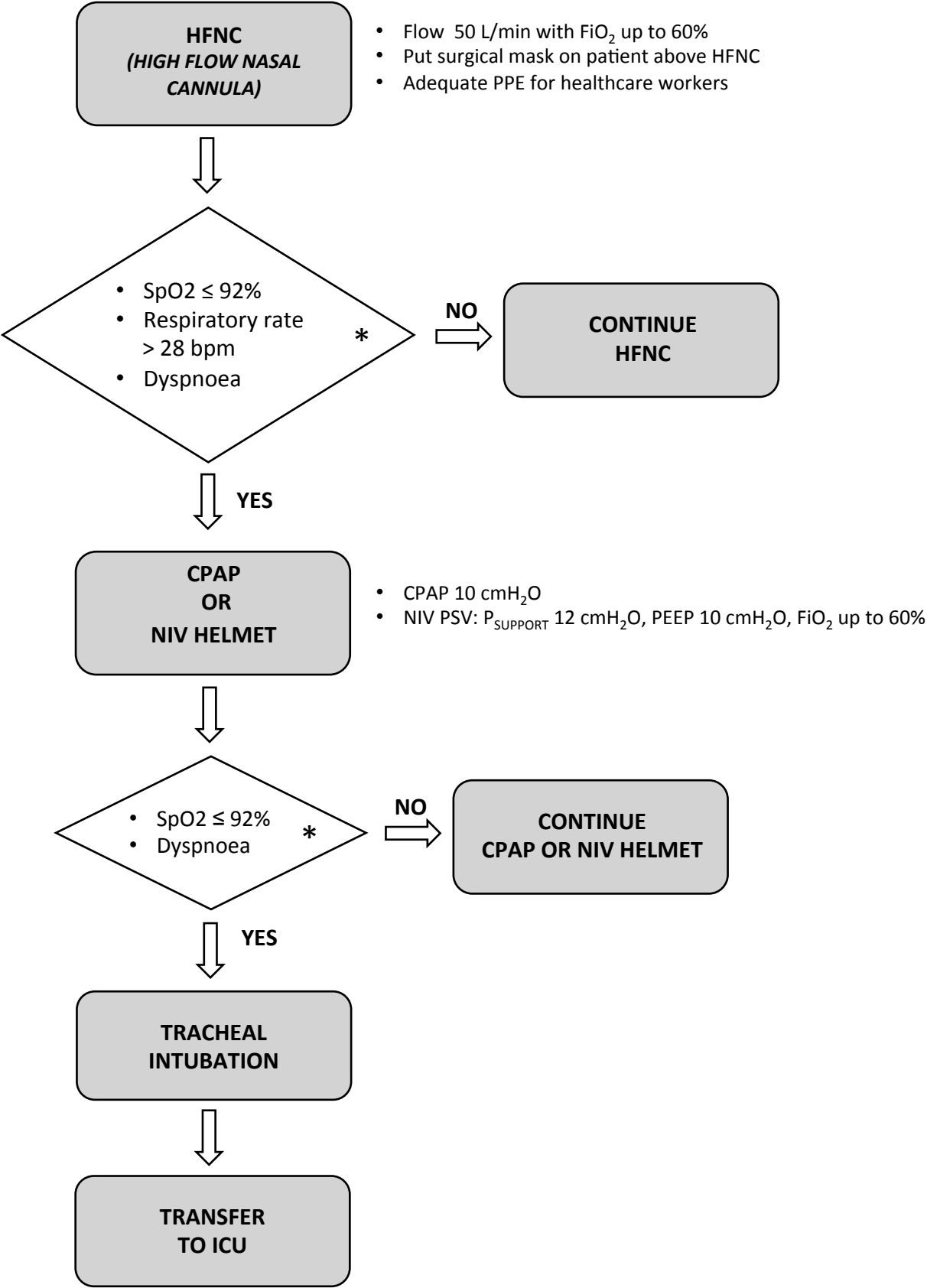
MEDICAL WARD

SUSPECTED OR CONFIRMED CASE OF COVID-2019

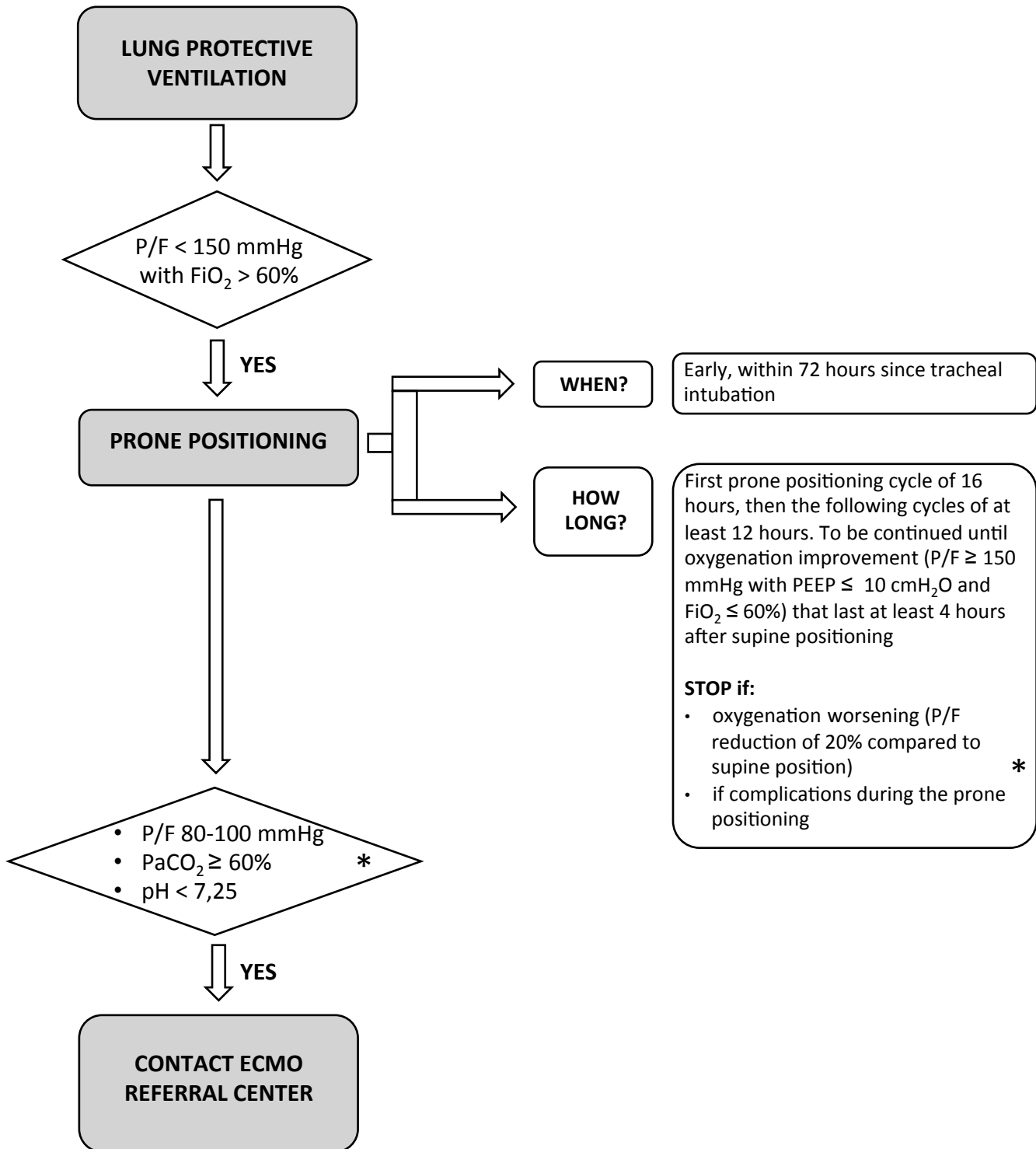


B

RESPIRATORY HIGH DEPENDENCY UNIT



* Enough one criterion



* Enough one criterion

TRACHEAL INTUBATION

BEFORE

PERSONNEL PROTECTION

- Hand hygiene
- Full Personal Protective Equipment (PPE)
- Minimum number of operators involved
- Negative pressure room (if available)

PREPARATION

- Formulate plan early
- Prepare drugs and equipment
- Assess difficult airway
- Connect HEPA filters to circuits and manual ventilator
- Use closed suctioning system
- Use video-laryngoscopy (if available)

DURING

TEAM DYNAMICS

- Delineate of the roles of the team members
- Cross-monitor for potential contamination

TECHNICAL ASPECTS

- Tracheal intubation performed by the most experienced physician
- Pre-oxygenation: use the lowest gas flows possible with tight fitting mask; avoid bag mask ventilation
- Rapid sequence induction
- Full dose neuro-muscular blocking agent to avoid coughing
- No awake intubation; no local anesthetic nebulization in the airway
- Positive pressure ventilation only after having inflated the cuff

AFTER

- Avoid unnecessary circuit disconnection
- If endobronchial suction is needed, wear PPE, pre-oxygenate the patient and arrest ventilation standby ventilator
- Respect proper degowning steps
- Hand hygiene

LUNG PROTECTIVE VENTILATION

SETTINGS

- SEDATION AND NEUROMUSCULAR BLOCK

VOLUME CONTROLLED VENTILATION

- V_{TIDAL} : 4-6 mL/Kg Ideal Body Weight (IBW)*
- Respiratory Rate: 16-26 bpm
- PEEP/ FiO_2 : see Table 1, if no other PEEP trials available

If pH < 7.25 and PaCO2 > 55 mmHg increase respiratory rate until 30 bpm

**IBW Men = $50 + 0,91 \times (\text{Height cm} - 152,4)$
Women = $45,5 + 0,91 \times (\text{Height cm} - 152,4)$*

Table 1.

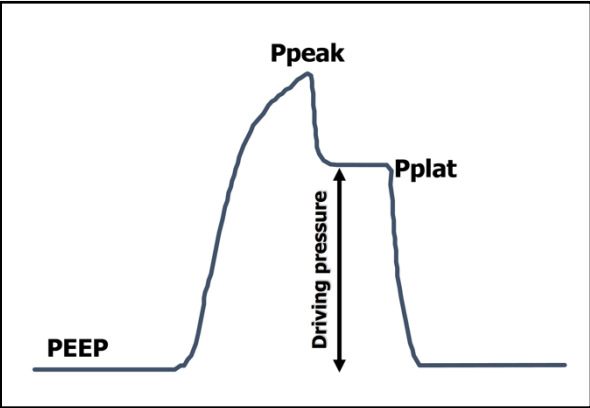
Lower PEEP/higher FiO2								
FiO ₂	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7
PEEP	5	5	8	8	10	10	10	12

FiO ₂	0.7	0.8	0.9	0.9	0.9	1.0
PEEP	14	14	14	16	18	18-24

TARGET

- SpO₂ 88-95%
- PaO₂ 55-80 mmHg
- $P_{PLATEAU} \leq 28 \text{ cmH}_2\text{O}$
 $\leq 30 \text{ cmH}_2\text{O}$ if BMI > 30
- DRIVING PRESSURE $\leq 12 \text{ cmH}_2\text{O}$
(Figure 1) $\leq 14 \text{ cmH}_2\text{O}$ if BMI > 30

Figure 1.



LUNG PROTECTIVE VENTILATION

SETTINGS

- SEDATION AND NEUROMUSCULAR BLOCK

PRESSURE CONTROLLED VENTILATION

- PC_{ABOVE PEEP}: 10-15 cmH₂O
12-18 cmH₂O if BMI > 30
- Respiratory Rate: 16-26 bpm
- PEEP/FiO₂: see Table 1, if no other PEEP trials available

If pH < 7.25 and PaCO₂ > 55 mmHg increase respiratory rate until 30 bpm

Table 1.

Lower PEEP/higher FiO ₂								
FiO ₂	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7
PEEP	5	5	8	8	10	10	10	12

FiO ₂	0.7	0.8	0.9	0.9	0.9	1.0
PEEP	14	14	14	16	18	18-24

TARGET

- SpO₂ 88-95%
- PaO₂ 55-80 mmHg
- V_{TIDAL}: 4-6 mL/Kg Ideal Body Weight (IBW)*

**IBW Men = 50 + 0,91 x (Height cm – 152,4)
Women = 45,5 + 0,91 x (Height cm – 152,4)*